

(a) differentiate directly into dopaminergic neurons after contact with one substance selected from the group consisting of tissue material and differentiation promoting factor.

28. (New) The tissue according to claim 26, wherein the cells are human cells.

29. (New) The tissue according to claim 26, wherein the tissue is derived from developing immature progenitor cells.

30. (New) The tissue according to claim 29, wherein the tissue is a monoclonal cell-line derived from immature progenitor cells of mammals.

31. (New) The tissue according to claim 26 being adapted for transplantation to restore neuronal defects.

32. (New) The tissue according to claim 31, wherein the tissue is derived from developing immature progenitor cells.

33. (New) The tissue according to claim 31, wherein the tissue is a monoclonal cell-line derived from immature progenitor cells of mammals.

34. (New) An isolated brain-derived neuronal tissue of mammals, the tissue not containing any physiologically active amounts of immuno-competent glial cells, wherein the tissue substantially contains dopaminergic neurons or neuronal progenitor cells being capable to differentiate directly into dopaminergic neurons after contact with one substance selected from the group consisting of tissue material and differentiation promoting factor, the tissue being obtained by a method comprising the following individual steps:

- dissection of mammalian brain tissue;
- isolation of progenitor cells;
- proliferation of progenitor cells;
- partial differentiation of progenitor cells;
- selecting individual cells using sub-cloning;

proliferation of selected progenitor cells wherein at least one step of the partial differentiation comprises a priming-step, in which the progenitor cells are exposed to exogenic factors causing partial differentiation and in which the exogenic factors are withdrawn from the cells at a time at which the withdrawal causes a re-differentiation of the cells in a way that after a subsequent selection and proliferation of the cells the tissue substantially contains cells differentiating into dopaminergic neurons;

wherein subsequent to the partial differentiation selection of dopaminergic neurons and a proliferation of the selected dopaminergic neurons is applied;

differentiation of the progenitor cells obtained as described above into dopaminergic neurons by contacting the progenitor cells with one substance selected from the group consisting of tissue material and differentiation promoting factor, if desired.

35. (New) The tissue according to claim 34, wherein the partial differentiation is applied so that after a subsequent selection and proliferation of the cells the tissue comprises >90% dopaminergic neurons or progenitor cells differentiating directly into dopaminergic neurons after contacting with one substance selected from the group consisting of tissue material and differentiation promoting factor.

36. (New) The tissue according to claim 34, wherein at least one of the steps selected from the group consisting of proliferation, selecting and partial differentiation is repeated.

37. (New) The tissue according to claim 34, wherein the priming is induced by a cytokine selected from the group consisting of LIF, CNTF, interleukines (IL1-16), interferones, MIF, MSF, and retinoic acid.

38. (New) The tissue according to claim 34, wherein the priming is induced in monoclonal progenitor cell lines.

39. (New) The tissue according to claim 34, wherein at least one step selected from the group consisting of expansion, selection and partial differentiation of progenitor cells is